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GENERAL DISCUSSION OF INTERNATIONAL ECONOMIC AND SOCIAL POLICY, INCLUDING REGIONAL AND SECTORAL DEVELOPMENTS

REGIONAL COOPERATION

Summary of the economic and social survey of Asia and the Pacific, 1990

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Part One

Recent Economic and Social Developments

I. WORLD ECONOMIC SITUATION AND PROSPECTS FOR DEVELOPMENT

1. The world economic growth rate decelerated to 2 per cent in 1990, the lowest rate since 1983, with wide variations among regions and countries of the world. The average growth rate of the industrialized countries fell from 3.4 per cent in 1989 to 2.6 per cent in 1990, with a sharp deceleration in the rates of growth in the economies of Canada, the United Kingdom of Great Britain and Northern Ireland and the United States of America to below 2 per cent, sustained growth in Germany around 4 per cent and a slight acceleration in the growth rate of Japan to over 5 per cent. The Union of Soviet Socialist Republics and other Eastern European economies suffered a negative 2.5 per cent average growth in 1990 after a slow 0.2 per cent growth in 1989. The average growth rate for the developing countries decelerated to 2.2 per cent in 1990 compared with 3 per cent in 1989. The developing countries of the Asian and Pacific region sustained their above 5 per cent average growth rate of 1989, which was the fastest among the developing country groups. Growth performance of African, Latin American and the Middle Eastern developing countries deteriorated in 1990 compared to 1989.

2. Economic growth has been slowing down in most of the industrial countries after a long period of sustained expansion since 1983. The recession in the United States was affecting the performance of other countries which depended on its market for a major share of their exports, although its impact worldwide was somewhat mitigated by the greater resilience of a number of other economies in the world and the growing strength of domestic markets and intraregional trade. The transitional problems of the economies of the Soviet Union and other Eastern European countries proved less temporary than foreseen, and the adverse impact on their economies in 1990 was greater than forecast. Furthermore, the advent of the Persian Gulf crisis and a failure of the Uruguay Round of multilateral trade negotiations to end conclusively in December 1990, though having a limited impact in 1990, added a considerable element of uncertainty and gloom to the already subdued prospects of world economic growth in 1991.

3. Growth in world trade also slowed down further in 1990 after the deceleration experienced in 1989. World trade, while continuing to grow more than twice as fast as world output, decelerated to 7.3 and 5.4 per cent respectively in 1989 and 1990 from 9.0 per cent in 1988.

4. Although the long-standing problems of world trade and payment imbalances, especially among the industrialized countries, eased somewhat in recent years with a narrowing of the imbalances among major countries and groups, they continued to exert pressures on interest rates, exchange rates and on the pattern of capital flows in the world economy. The developing countries experienced a sharp increase in their balance-of-payment deficits to

an estimated $US 16 billion in 1990 from $US 2 billion in 1989. These deficits would widen further, particularly for the oil-importing countries, with an increase in their financing needs.

5. The flow of financial resources to the developing countries has been greatly reduced in recent years. While the level of official development assistance (ODA) in nominal terms remained more or less stable, that of private flows was greatly reduced. While private bank lending has been reduced to almost half of the level of the early 1980s, there has been an acceleration in the flow of foreign direct investment (FDI), including portfolio investment. However, the developing countries received only a small fraction of the total volume of FDI flow worldwide. For example, in 1989 the developing countries received a total FDI flow of $US 16 billion which was about 12 per cent of the $US 134 billion of estimated inflow into 13 industrial countries.

6. At the same time the debt problem of the developing countries remained undiminished. Efforts to reduce the developing countries' debts have achieved limited success thus far. The total external debt of the developing countries was projected to increase to reach $US 1,354 billion at the end of 1991. That increase was accounted for by regions other than Latin America whose level of indebtedness was to remain unchanged. In the debt structure of the developing countries the share of official credit was rising; that reflected an accelerated diversion of official credit to the heavily indebted countries whose share of total official credit was increasing while those of the countries which avoided such debt difficulties was declining. That tended to be inequitable for countries which, with difficulties and sacrifices, avoided falling into serious indebtedness in the first place.

7. The trade and balance of payments of the developing countries were likely to be adversely affected by emerging protectionist pressures. Owing to the inability of the Uruguay Round of multilateral trade negotiations to reach a successful end in December 1990 as scheduled, and the fear of its eventual failure, the already existing protectionist pressures were certain to increase, and resort to unilateral and bilateral approaches to trade problems could greatly intensify. Such developments were certain not only to have severe adverse effects on world trade and economic growth but also to have repercussions in the financial markets.

8. Prices of primary commodities continued to show weaknesses and were not responding to higher oil prices consequent to the Persian Gulf crisis as they had following the previous oil shocks because of an enhancement of their competitiveness vis-à-vis oil product-based substitutes. However, the rise in oil prices and loss of export earnings and remittances in the aftermath of the Persian Gulf crisis were adding substantially to the trade and payment deficits of the non-oil-exporting developing countries. The gains in export earnings by the oil-exporting developing countries were also unlikely to be recycled to meet the financial needs of the deficit countries as was done during the previous oil shocks. The large multinational banks have remained cautious and reluctant to mediate and channel funds to the developing countries in need of international borrowings.

9. The developing countries in the ESCAP region could be expected to maintain their higher-than-world-average rate of economic growth in 1991 and beyond. However, the pace of economic growth was likely to slow down further and their external payment deficits and financing needs were likely to increase considerably with the possible exception of the few oil-exporting countries in the region. In the emerging world economic situation, the developing countries in the ESCAP region would need to adapt their policies further to meet the challenges and to benefit from the opportunities that may arise.

II. MACROECONOMIC PERFORMANCE AND POLICIES IN THE ESCAP REGION

10. Among the three developed countries of the region, the economic performance of Japan remained strong with an expected gross national product (GNP) growth rate that exceeded 5 per cent in 1990 compared with a 4.9 per cent growth in 1989. Inflation rates were also among the lowest in the world. Investment was growing despite set-backs in the stock market in 1990 and the raising of interest rates in response to signs of some acceleration in inflation rates. The trade and payment surpluses in Japan were substantially reduced during the period 1989-1990 as a result of slower growth in exports and faster growth in imports, as domestic demand which has expanded at rates of 4 to 5 per cent in recent years sustained the economy's strong growth. The economy of Australia was expected to grow at a slower, 3.3 per cent, rate in 1990 compared with 4.7 per cent growth in 1989. However, inflation rates in the economy decelerated and the balance-of-payments deficit as a proportion of gross domestic product (GDP) declined. The government budget surplus rose above 2 per cent of GDP in 1990. The economy of New Zealand, however, continued to stagnate in 1990 after recovering somewhat in the previous year from a decline in 1988. New Zealand, like Australia, also has succeeded in maintaining budgetary surpluses and reducing inflation rates since 1988, although the current account balance-of-payments deficit remained high.

11. The developing countries of the Economic and Social Commission for Asia and the Pacific (ESCAP) region maintained their overall growth rate of 5.4 per cent in 1990, the same as in 1989. Slow growth in exports, owing to lower rates of world economic growth, affected the balance of payments and the capacity for growth of economies in the region, particularly those which are highly trade oriented. The rise in oil prices since the Persian Gulf crisis, which raised the cost of imports for most developing economies of the region, added to the region's emerging trend of decelerating rates of economic growth and accelerating rates of inflation. Despite these difficulties, a large number of countries in the region maintained high rates of economic growth, although the rates were lower than in the previous years. Indeed, quite a few countries improved their performance over the previous years.

12. In East Asia, China and the Republic of Korea achieved higher growth rates in 1990 compared with their achievements in 1989. The positive results of the austerity measures in China which have been in force since the latter

part of 1988, and the stimulation of domestic demand in the Republic of Korea, helped to achieve higher growth rates in 1990. However, China was more successful in containing inflation, which came down to just above 3 per cent in 1990 from 17.8 per cent in 1989, whereas in the Republic of Korea the inflation rate accelerated from 5.1 per cent in 1989 to 9.2 per cent in 1990. In China, after some slack in 1989, investment was picking up again in 1990 with the relaxation of domestic policies and improvement in the country's external economic relations which were strained in 1989 because of political causes. Investment growth in the Republic of Korea also remained strong, involving both construction and manufacturing activities. Economic growth in Hong Kong remained subdued in 1990 as in 1989, whereas the inflation rate accelerated to 10 per cent from 7.5 per cent in 1989.

13. The South-East Asian economies maintained a strong growth performance in 1990 with Indonesia and Malaysia achieving higher growth rates than in 1989. Indonesia achieved an estimated 7 per cent growth rate in 1990 compared with 6.9 per cent in 1989. Similarly, Malaysia achieved 9.2 per cent growth in 1990 compared with 8.5 per cent in 1989. Singapore and Thailand achieved 8.3 per cent and 9.5 per cent growth rates in 1990 compared with 9.2 and 12.2 per cent respectively in 1989. Although their rates of growth were thus lower than in previous years, they achieved some of the highest rates of growth in the region and in the world. The Philippines economic growth rate, however, deteriorated from 5.7 per cent in 1989 to 3.1 per cent in 1990 amidst a number of domestic and external difficulties.

14. Rates of inflation accelerated in all the countries of South-East Asia. However, with the exception of the Philippines, where it accelerated to 12.7 per cent in 1990 from 10.6 per cent in 1989, those rates were the lowest in the region and remained at the single-digit level. With the exception of Malaysia, growth in money supply tended to accelerate in all the South-East Asian countries, which was a factor in the acceleration of inflation rates, although high rates of output growth substantially absorbed the growth in money supply. High wage demand and infrastructural bottlenecks were other factors responsible for accelerating inflation. With the exceptions of Indonesia and Malaysia, which benefited from the rise in oil prices, the balance of payments of other South-East Asian countries showed signs of deterioration with larger deficits. Budgetary deficits as a proportion of gross domestic product (GDP) in Indonesia, Malaysia and the Philippines tended to stabilize, although they remained relatively large. Singapore and Thailand, however, enjoyed budgetary surpluses which tended to improve further in 1989-1990. Savings and investment activities in all the South-East Asian countries remained buoyant, with investment being stimulated by a large inflow of foreign direct investment, especially in Indonesia, Malaysia, Singapore and Thailand.

15. The economy of Viet Nam registered a GNP growth rate of only 2.4 per cent in 1989 compared with 5.9 per cent in 1988. Investment in the economy fell by 3 per cent, although agricultural production and exports increased substantially. Growth prospects in 1990 remained weak as the reforms which were recently being implemented were still to make their full impact. Control

of inflation and restoration of financial stability were some of the positive achievements of recent reforms, although inflationary pressures were re-emerging in late 1990, largely as a result of high domestic oil prices.

16. In South Asia economic growth in 1990 suffered considerable set-backs from the fall-out of the Persian Gulf crisis. However, changing climatic conditions, which continued to be important in most countries of the subregion, affected their economic performance. Thus, in India, which had achieved a 4.5 per cent growth rate in 1989 compared with an unprecedentedly high rate of 10.4 per cent in 1988 owing to a weather-induced spurt in agricultural output, the growth rate in 1990 remained unchanged at the 1989 level. Pakistan was estimated to have achieved a higher rate of 5.2 per cent growth in 1990 compared with 4.8 per cent in 1989 although the rate of growth in the agricultural sector was reduced to 4 per cent in 1990 from 7.1 per cent in the previous year. Bangladesh and Sri Lanka, which had experienced very low growth rates of GDP in 1988 and 1989, improved their performance markedly in 1990 with estimated growth rates of 5.8 and 5.9 per cent, respectively. However, Nepal's growth rate, which fell from 7.8 per cent in 1988 to 2.3 per cent in 1989, was reduced further to 2 per cent in 1990.

17. With the exception of Sri Lanka, inflation rates remained moderate in the other South Asian countries largely owing to improved agricultural supplies and also to moderation in the growth of money supply. Rates of inflation, however, tended to accelerate somewhat in India and Pakistan. Sri Lanka experienced the sharpest acceleration in inflation, with the rate of price increase rising from 11.6 per cent in 1989 to an estimated 22.1 per cent in 1990. Although recent data indicated low growth rates in money supply in most South Asian countries, inflation may have been pushed up by generally high rates of monetary growth in previous years. The South Asian countries also continued to incur large budgetary deficits which in 1989 amounted to 11 per cent of GDP in Sri Lanka and 6 to 7 per cent in other countries. Savings and investment activities in South Asia generally tended to stagnate.

18. The Islamic Republic of Iran recovered from the effects of the decade of turmoil and war and low oil prices with estimated growth rates of 4 per cent in 1989 and over 7 per cent in 1990. In addition to a resurgence in oil output and revenues, the recovery in the economy also came from manufacturing, mining and construction. The rate of investment in the economy was estimated to have risen to 15 per cent in 1990 but was still only half of the rates reached immediately prior to the revolution in 1979. The country's foreign exchange earnings, which had reached a low of $US 7.4 billion in 1986, improved with the resurgence of oil output and prices. Despite government efforts to improve revenue collection and restrain expenditures, the country was still experiencing large budgetary deficits and high inflation. The rate of inflation, however, was reduced to 17.4 per cent in 1989 from an average of 27.6 per cent during the period 1985-1989, and fell further in 1990.

19. In sharp contrast to the generally high rates of growth in other developing countries, economic growth in the least developed countries of the region remained weak and unstable, lacking any definite trends. Among the four South Asian least developed countries, Bhutan and Maldives have shown some promise of improved performance in recent years. However, Bhutan's economic growth rate decelerated after a temporary spurt resulting from the commissioning of a few large projects in 1986 and 1987. Maldives, however, achieved a sustained 12 per cent average growth rate during the period 1985-1989, which was assisted by sustained investment growth and tourist inflow. Bangladesh and Nepal suffered set-backs in their economic growth recently owing to natural calamities. Nevertheless, in 1990 Bangladesh achieved a 5.8 per cent rate of growth compared with 2.4 per cent in 1989. However, Nepal's growth rate which declined to 2.3 per cent in 1989, further declined to 2 per cent in 1990.

20. The GDP of Myanmar grew by 7.5 per cent in 1989 after an 11.4 per cent decline in the previous year. The economic growth in the Lao People's Democratic Republic has also accelerated since 1989 when a 4 per cent growth rate was achieved compared with 2.1 per cent in the previous year. Growth prospects of the economy of Afghanistan also appeared to have improved recently after it had suffered an annual decline of 1.2 per cent during the period 1979-1986. Among the Pacific island least developed countries Samoa and Vanuatu achieved moderate rates of economic growth in 1989. Samoa experienced a GDP growth rate of 1.3 per cent in 1989 after a decline of 0.2 per cent in the previous year, and Vanuatu achieved an estimated annual growth rate of around 2 per cent in 1988-1989.

21. Most of the least developed countries continued to suffer from structural weaknesses because their large agricultural sectors are vulnerable to frequent ravages of weather. Their performances are further adversely affected by fluctuations in export earnings which come mainly from agricultural products. Savings and investment activities remained weak in most of the least developed countries. Most of them also suffered from large budgetary deficits and high rates of inflation. Inflation was particularly high in Afghanistan, the Lao People's Democratic Republic and Myanmar.

22. Most of the Pacific island economies like the least developed countries also suffered from severe structural disadvantages and resource limitations. The growth pattern in these countries has also remained highly unstable, fluctuating between high and low growth rates in successive years. With generally favourable climatic conditions, growth rates in a few of the island countries picked up in 1989, but they were expected to achieve less favourable results in 1990 with lower rates of GDP growth and high inflation. In 1989, Fiji vastly improved its performance with a GDP growth rate of 12.1 per cent compared with 0.2 per cent in 1988, while Solomon Islands improved its growth rate from 5.3 per cent in 1988 to 5.5 per cent in 1989. Tonga achieved a 3.6 per cent growth in 1989 compared with a decline of 2.1 per cent in 1988. Papua New Guinea, however, had a reduced growth rate of 1.4 per cent compared with 3.1 per cent in 1988.

III. SECTORAL PERFORMANCE

A. Agriculture

23. In spite of the structural changes that have taken place in the economies of the region enhancing the importance of industry and services in overall production, agriculture still remained the most important sector in most of the economies. However, the sector remained vulnerable to periodic weather-induced fluctuations in output. An unfavourable monsoon seriously affected agricultural production in 1987 in many countries. Production has recovered since then, but there have been considerable variations in production growth as the weather has had different effects on different crops in different countries.

24. Among the major agricultural producers in the region, Bangladesh, India, Indonesia, Malaysia, Pakistan and Viet Nam achieved reasonably high rates of growth in agricultural production in 1989, most showing improvement over their performance in 1988. Only in China, India and Thailand did production increase more slowly in 1989 than in 1988. Among the least developed and other smaller economies of the region, Fiji, Lao People's Democratic Republic and Solomon Islands also achieved high rates of production growth in 1989, far exceeding their records in the previous two years.

25. In 1990 production increased at more moderate rates in most countries of the region. The rates of growth had slowed in most countries compared with 1989, except in China where the growth rate accelerated from the previous year. Among the major producing countries, Thailand experienced a production decline in 1990 mainly because of a large drop in rice production owing to adverse weather conditions and some diversion of land from rice production to other crops in the face of the country's increasing difficulties in selling its surplus rice in the export market. Among other countries which suffered a production decline in 1990 were Mongolia, Nepal, Papua New Guinea, the Republic of Korea and Sri Lanka.

26. Growth in agricultural production in the region was still very much influenced by growth in food production. Although diversification of activities within the sector has been under way in many countries, the rates of growth in food and overall agricultural growth rates were almost indistinguishable, except in a few cases where non-food commercial crops predominated. Malaysia and Sri Lanka were two examples. Another important aspect of agricultural performance in the ESCAP region in recent years was that the livestock and fishery products recorded higher rates of growth than the crops sector. This increased significantly the weight of the livestock and fishery products in total agricultural production in many countries. This was a favourable development in so far as a faster growth in these subsectors would provide supplementary incomes to the farmers and a greater stability to these incomes in the face of weather-induced fluctuations in crop production. They would also increase the supply of protein in the people's diet.

B. Industry

27. The pace of industrialization accelerated in many countries of the ESCAP region during the latter part of the 1980s, owing in part to domestic policy reforms and in part to external conditions favouring the flow of foreign direct investment into the countries in the region. In domestic policies, the general tenor was liberalization involving removal or relaxation of controls and licensing requirements, less protection from foreign competition and a greater emphasis on the role of the private sector in industrial development, including privatization of the existing public enterprises.

28. In the period 1987-1988 the rates of industrial growth reached 15 to 20 per cent in a number of countries in the region. Growth was concentrated mainly in the manufacturing sector within a composite industrial sector consisting of mining, manufacturing and the utilities in most countries. With a few exceptions, most countries had limited mining activities. In some countries, mining activities have been shrinking in recent years, although in other countries impressive rates of growth in the mining sector have been registered.

29. Recent industrial performance has been uneven among countries of the region. Economies in East and South-East Asia generally achieved much faster rates of industrial growth in recent years compared with the achievements of other countries. Most of the region's least developed and other small economies have performed poorly. However, during 1989 and 1990 even the fast-growing economies of the region experienced sharp deceleration in their industrial growth. A number of countries were experiencing labour shortages, wages and cost increases, and lower demand and protectionist threats from abroad against their manufactured exports. Export growth, a main propeller of industrial growth spearheaded by manufacturing, was thus affected by both the domestic cost-price increases and sluggish external demand; slow export growth, in turn, reduced the pace of industrial growth in a number of economies.

C. The service sector

30. The service sector has expanded at rapid rates in all economies of the ESCAP region, usually exceeding overall GDP growth rates during the past decade. Consequently, the share of the service sector in GDP has grown in most countries within the region over the past decade. Economies which have experienced rapid growth in their service sector are the newly industrializing economies (NIEs), the members of the Association of South-East Asian Nations (ASEAN), Bhutan, China and Maldives. In many cases the growth in the service sector was associated with the overall growth in GDP over this period, a healthy sign since service sector growth may not always be desirable if it is associated with insufficient growth of the commodities sector, or if the services are concentrated in activities which are either non-productive or circulatory in nature. Growth rates of diverse activities within the service sector indicated a varying pattern across the region.

31. Thus, in the NIEs and the high growth economies of South-East Asia, financial and allied services displayed high growth rates, often exceeding 10 per cent a year during the 1980s. In addition, trade and transport sectors also displayed rates of growth of nearly 10 per cent in these economies. Trade and transport services grew at double-digit rates in China and the Islamic Republic of Iran. Trade and transport services displayed growth rates exceeding the rates of growth in GDP in the small Pacific island economies. Growth in trade services was high in Bangladesh, Nepal and Pakistan, while these countries also experienced high rates of growth in public administrative services. Although India had a higher rate of growth in public administration, the service sector growth was better balanced among trade, financial and real estate, and other services.

32. The services sector in a number of countries in the region was undergoing rapid technological changes, especially in the field of information, and post and telecommunications services. While policies need to be adapted to absorb the emerging technological changes in telecommunications and general informatics, countries in the region generally require upgrading and better maintenance of the transport infrastructure, which was emerging as a bottleneck to their further dynamic growth.

IV. EXTERNAL TRADE AND PAYMENTS

33. Much of the ESCAP region's economic dynamism has been attributed to its trade dynamism. The close relationship between the trade and economic growth rates in many economies in the region with trade turnover of 60 per cent or more of GDP makes this apparent. However, a large number of weak and smaller economies of the region have not shared this dynamism. Their lack of success can be largely attributed to a lack of diversification in their export trade which was dominated by primary commodities, the prices of which have fluctuated with an overall tendency to decline over time. The consequent adverse movements in the terms of trade and their extensive need for imports of capital, intermediate goods and even consumer goods, have continued to keep their external balance of payments in continuing structural disequilibrium.

34. The market for exports from the ESCAP region has expanded during the 1980s, particularly in the United States, which had a share of 21.2 per cent of exports from the developing countries in the region in 1989 compared with 15.6 per cent in 1980. The largest share of the region's trade took place within the region itself. However, this share had increased only marginally from 40 per cent in 1980 to 40.8 per cent in 1989. A larger share of 48.8 per cent of the developing countries' exports were marketed within the region in 1989 compared with 47.6 per cent in 1980. Exports of the developing countries to the developing countries themselves accounted for a much higher 31.3 per cent of their exports in 1989 compared with 23.4 per cent in 1980. These are some of the indications of the dynamic growth and strength of intraregional trade in the ESCAP region. However, the distribution of this intraregional trade flow remained highly skewed with a small number of countries, such as China, Malaysia, and Indonesia with Hong Kong and Singapore

as entrepôt centres, dominating total intraregional trade flows. Many other developing countries have experienced a fall in the share of their exports within the region.

35. After two years of rapid growth in 1987-1988, exports from the region grew at a much slower pace in 1989-1990. For the developing economies of the region, growth in the current dollar value of exports decelerated from 22.8 per cent in 1988 to 12.7 per cent in 1989. The average rate of growth in imports also fell from 26.7 per cent in 1988 to 14.6 per cent in 1989. Available data for 1990 indicated a further slow-down in both imports and exports.

36. The region's three developed countries had made only a 4.6 per cent gain in exports in 1989 compared with 16.7 per cent in 1988, while their imports increased by 13.9 per cent compared with 24.1 per cent in 1988. Australia made the largest gain in exports, at 11.7 per cent, compared with 3.9 per cent in Japan and 0.7 per cent in New Zealand.

37. Among the developing countries, the highest deceleration in trade occurred in the three East Asian economies of China, Hong Kong and the Republic of Korea. In China exports increased at the rate of 4.8 per cent in 1989 compared with 20.5 per cent in 1988. Imports fell even more sharply from 27.6 per cent growth in 1988 to 5.8 per cent in 1989, which largely reflected the austere domestic economic policies. With some relaxation of domestic policies and improvement of commercial relations, China's exports in 1990 were rising at a faster rate of more than 15 per cent during the first half of the year compared with 5.8 per cent during the same period of 1989, while its imports fell by 17.7 per cent. Export growth in Hong Kong decelerated in 1989 to about half of the 30.3 per cent rate of growth in 1988 while its imports increased by 12.9 per cent compared with 31.8 per cent. The Republic of Korea experienced one of the sharpest decelerations of export growth with a rate of 3 per cent in 1989 compared with 28.4 per cent in 1988. Domestic cost increases, currency appreciation and also protectionist pressures were responsible for the reduced performance of both Hong Kong and the Republic of Korea. During the first half of 1990 the exports of Hong Kong were growing at 7.7 per cent and those of the Republic of Korea at 1.6 per cent compared with 23.8 per cent and 7.5 per cent growth respectively in the corresponding period of 1989.

38. Countries in South-East Asia also experienced deceleration in trade growth in 1989 and 1990. Brunei Darussalam, Indonesia and Malaysia, however, improved their export performance in 1989 over 1988 with export growth rates of 4.4 per cent compared with 2.8 per cent, 15.3 per cent compared with 12.1 per cent, and 20.7 per cent compared with 15.8 per cent respectively. All three countries benefited from the higher average price of oil which constituted a significant proportion of their total exports. They had also experienced accelerated rates of import growth. Exports and imports in Singapore in 1989 expanded at rates of 13.7 per cent and 13.2 per cent compared with 37.0 per cent and 34.7 per cent in 1988. Exports in Thailand increased at the rate of 25.7 per cert in 1989 compared with 36.8 per cent in

1988. Import growth also decelerated from the exceptionally high rate of 56.1 per cent in 1988 to 27 per cent. Growth in exports in the Philippines decelerated to 10.1 per cent in 1989 from 26.4 per cent in 1988. Import growth also was reduced from 28.2 per cent to 22.9 per cent. In Viet Nam exports increased by 61.6 per cent in 1989 compared with 25.1 per cent in 1988. Imports increased at the rates of 15.4 per cent in 1989 and 18.8 per cent in 1988. The exceptionally high growth rate of exports in 1989 reflected the country's success in producing a sizeable surplus of rice to enable exports of 1.5 million tons. In 1990, the South-East Asian countries showed similar patterns of trade growth, as in 1989 with Brunei Darussalam, Indonesia and Malaysia improving upon their 1989 performance, whereas the Philippines and Thailand experienced a further slow-down in growth.

39. In South Asia, India had an accelerated 17.8 per cent growth in exports in 1989 compared with 13.7 per cent in 1988. Exports in Pakistan increased at the rate of 3.2 per cent in 1989 compared with 9.9 per cent in 1988, and those of Sri Lanka increased at the rate of 6 per cent compared with 12.6 per cent. All these countries had a markedly reduced rate of import growth also as they are seeking to improve the persistent deficits in their trade balances. The Islamic Republic of Iran also experienced a sharp increase in exports by 35.6 per cent in 1989 after a 21.9 per cent decline in 1988, largely as a result of a rise in production and prices of oil, the country's main export. In 1990, the South Asian countries achieved a rather high percentage of growth in their exports while their imports were growing more slowly.

40. Exports and imports of the least developed countries and the small Pacific island economies continued to fluctuate from year to year. In 1989 Bhutan, Maldives, Myanmar and Vanuatu had high rates of export gains. Among the Pacific island economies, Fiji and Tonga achieved some sustained gains in exports in 1988 and 1989, with both of them achieving a 12.5 per cent rate of growth in exports in 1989. In Papua New Guinea and Solomon Islands, however, exports growth rates declined.

41. The current account balance of payments worsened in 1989 for many countries in the region, including Bangladesh, China, Malaysia, Papua New Guinea and Thailand, all of which experienced larger deficits. Nepal, Pakistan and Sri Lanka, however, succeeded somewhat in reducing their deficits. Singapore had improved its surplus balance on current account while the surpluses of the Republic of Korea were sharply reduced. With the exception of the net oil exporters, including China, the balance-of-payment outcomes for other countries in the region were likely to be worse in 1990 as a result of a slower growth in exports, higher costs of imports, particularly of oil, and the loss of remittances and tourism revenues.

42. The current account balance of payments worsened in 1989 for most countries in the region as imports had increased faster than exports, although the rates of growth of both were slower than in previous years. The deficits in the merchandise trade account had also been re-enforced by the deficits in the trade in services, although in the cases of China, the Republic of Korea, Singapore and some other smaller countries surpluses in the services trade helped to offset part of the deficits in the trade account.

43. Long-term capital inflows, particularly in the form of foreign direct investment, have enabled countries in East and South-East Asia to finance the deficits without undue concern. However, countries in South Asia, and the least developed and other smaller countries experienced a reduction in their reserves as their capital receipts in the form of official development finance, the major source of finance for them, tended to stagnate or fall.

V. ASPECTS OF SOCIAL DEVELOPMENT

44. Although the developing countries in the ESCAP region have achieved high rates of economic growth over a considerable period of time, the region still continued to have deep-seated social problems to overcome. The most basic problem is that of poverty. A recent estimate put the number of people below the poverty line in the region at 800 million, which constituted three fourths of the total number of poor people in the developing countries of the world. Poverty is manifested in widespread undernourishment and malnourishment, ill health and illiteracy, and in many other forms, in countries of the region.

45. The causes of poverty persisting in the region are many. Among them, rapid population growth pressing on limited resources, unequal distribution of income and assets, and increasing marginalization of large sections of the population into landlessness are well identified. More recently, environmental degradation and the growing vulnerability of women, children, and other groups, such as refugees and displaced persons, have added further dimensions to the poverty problems in the region.

46. Countries in the region have attempted to overcome poverty and its consequences with policies and programmes that have a specific anti-poverty focus and by gearing the broader programmes, such as in health and education, to the task of poverty alleviation. These broader programmes have special significance in alleviating poverty in that they can not only contribute directly to the welfare of the poor but also impart skills and improve the productive opportunities of those who are deprived of assets other than their own labour. It is recognized that the removal of illiteracy, in which the spread of primary education has a critical role, is of great significance in the strategy of poverty alleviation. It is estimated that 640 million people, or approximately a third of the total adult population of the region, are illiterate, and they are the majority of the poor.

47. Primary education, as indeed other higher levels of education, has spread considerably in the region. Illiteracy, however, has not been removed as the existing number of illiterates suggests, and primary education may remain ineffective inasmuch as enrolments in primary schools are still far less than universal in many countries in the region. Drop-out rates of those enrolled remain high, and the educational infrastructure is grossly inadequate to impart effective literacy and numeracy to the large and growing number of primary school-aged children, particularly in the least developed and some of the other populous countries.

48. Countries throughout the region have launched and implemented a large number of anti-poverty programmes geared towards emergency food supplies and the provision of employment and enabling people to acquire productive assets. Their overall objectives have been gradually attuned not only to short-term needs of relief but also to long-term needs of the development of the community and the individual. Their achievements in many countries have been mixed. Although there are instances of the positive achievements of many of these programmes, many weaknesses in their financing and administration have also been detected which were responsible for their failure to achieve the desired results.

49. Formal social security arrangements, which are the central planks of anti-poverty and welfare systems in the developed countries, have been less extensively used in the developing countries of the region. Until recently it was considered injudicious for developing countries to undertake extensive social welfare programmes. However, this perception has undergone a significant change primarily as a result of increasing industrialization and modernization in many developing countries and the attendant risks of industrial and urban life, and also because of the erosion of traditional and informal systems which used to provide support to the needy and the vulnerable.

50. None the less, elaborate social security arrangements have yet to emerge in most developing countries in Asia and the Pacific. Two leading forms of social security or social insurance found within the region are the ones relating to disability grants for workers arising out of injuries incurred at the work place and the ones relating to old-age benefits for those who have attained retirement. The level of financial support and the extent of coverage under these schemes are, however, neither uniform nor sufficient, even in countries which have adopted them. It is, therefore, felt that the traditional social security services based on customary arrangements, religious charity and the activities of non-governmental organizations have a continuing useful role to play in providing support and succour to the poor in the region at least until their standards, by and large, have been permanently raised above the poverty threshold.

Part Two

Infrastructure Development in the Developing ESCAP Region: Needs, Issues and Policy Options

I. RATIONALE, SCOPE AND CONTENT OF THE STUDY

51. Part two of the present report examines in depth the increasingly important issue of infrastructure development in the context of the need to strengthen and maintain the relatively strong economic performance, but highly diverse development experience, in the Asian and Pacific developing region. Although in the past discussions on the subject have been limited to physical (or economic) infrastructure, the Survey covers social (or human) infrastructure as well. Included in physical infrastructure are electrical

power supply networks, transport and communications, and agricultural support facilities; social infrastructure includes health, education, and water supply, sanitation services and housing. Infrastructure has several distinctive features. New or enlarged facilities may take years, if not decades, to design, build and put into service. They often have to be provided in lumpy and costly units, thus generating excess capacity at the initial stage of operation, and large expenditure on maintenance is essential to keep them in a good serviceable condition. The demand for infrastructure tends to expand with, and frequently at a faster rate than income growth and structural transformation, particularly from regions and social strata less adequately provided with such facilities and services. Indeed, there is substantial evidence concerning the high rate of return on investment, and the possible redistributive impact, through not only physical but also social infrastructure development. Resource scarcities, coupled with management inefficiencies leading to capacity under-utilization, reduce the supply elasticity in the short run, causing severe and wide-ranging infrastructure bottle-necks in a large number of developing economies in the ESCAP region.

52. The salient characteristics of infrastructure make it incumbent on the Government to play a leading role in infrastructure development. Indeed, in the initial stages of economic development it seemed inconceivable that any private entrepreneur would even consider it a viable proposition to invest in infrastructure development. However, the situation has been changing over time, and many countries, unable to finance infrastructure needs through public funds, have encouraged the private sector, often through foreign joint ventures, to participate in the construction and management of infrastructure facilities. So far this has happened only to a very limited extent and in only a few countries of the region. Infrastructure development remains by and large an activity dominated by the public sector.

53. The issue of infrastructure development is not new. However, in the 1990s the question has acquired a new urgency, significance and orientation for the developing economies of the Asian and Pacific region. As they restructure their economies to meet the emerging global challenges and opportunities and endeavour to find their niches in the changing patterns of comparative advantage, there is a need to assess the adequacy of the available infrastructure facilities. It is also necessary to examine the finance, management, technology and other factors related to the development of needed infrastructure. The speedy development of appropriate infrastructure in a cost-effective and efficient manner is a crying need to complement the process of economic and industrial restructuring under way in the developing ESCAP region.

II. PHYSICAL INFRASTRUCTURE DEVELOPMENT IN THE ESCAP REGION

54. Among the physical infrastructure needs in the region's developing economies, one of the most basic is that of energy. Demand for electrical power expanded at a fast rate, averaging generally upwards of 8 per cent annually in the last two decades. The levels of per capita electricity

consumption have tended to be lower in most low-income and least developed countries in Asia; several of these countries (for example, Afghanistan, the Lao People's Democratic Republic, Myanmar, Nepal and Sri Lanka) derived one half or more of their power from hydroelectricity. The severe strain on the power subsector resulted in varying degrees of power shortage in Bangladesh, China, India, Nepal, Pakistan, Philippines, Thailand and Viet Nam. In addition, the persistent lack of affordable sources of commercial energy, particularly in rural areas, has contributed to unsustainable forestry practices, growing fuelwood shortages and environmental degradation in many parts of the ESCAP region. The binding constraints on increased electricity supply in the short to medium term have necessitated the introduction of wide-ranging measures for energy conservation to reduce excessive waste in transmission and distribution and to promote the use of cleaner and less expensive sources of primary energy.

55. Transport and communications generally account for the largest share of government spending on infrastructure. There was a reasonably steady growth in railway freight and, to a lesser extent, passenger traffic in China, India, Indonesia and Mongolia in the second half of the 1980s. Generally, however, rail transport in South Asia, with an estimated route length of about one third of the region's total of approximately 216,000 kilometres, and in China (with a quarter of the region's route total) has declined in relative importance, partly because of underinvestment in the railway sector and partly owing to a sharp increase in road transport. Rail-based systems provide perhaps the most cost-efficient transport mode, particularly for freight over long distance and for mass transit in densely populated urban areas, although constraints on pricing have generated acute financial problems for many systems. Realizing its importance and past neglect, several countries in the region have launched investment programmes, among other measures, aimed at track upgrading (largely through electrification) and extension, at promoting improved and integrated services, and at providing urban mass transit in order to redress, if not reverse, the emerging intermodal imbalance in transport services.

56. In road transport the increase in passenger and commercial motor vehicles has been substantial across many parts of the region, with China, Indonesia, the Islamic Republic of Iran, Malaysia, Pakistan and Thailand among the countries registering double-digit growth annually in the volume of passengers and commercial motor vehicles, including two- and three-wheeled vehicles, in the last two decades. In contrast, the ancillary infrastructure, in particular the road network, expanded very slowly (around 2 per cent a year) despite concerted efforts made in many countries of the region; its quality has also tended to deteriorate owing to inadequate design, maintenance and management. All these factors have contributed over the years to a severe waste of resources resulting in problems of congestion, pollution and urban blight.

57. Seaports constitute another important part of the transport infrastructure, containerizating posing one of the most challenging options in port development in the developing ESCAP region in the last two decades or

so. The increasing trade volumes have facilitated the adoption of containerization which has witnessed a dramatic increase in container traffic in many ports particularly from the second half of the 1970s. Consequently, port development and modernization continued, with heavy investment and an emphasis on infrastructure and modal integration throughout most of the region. Several major facilities have come on stream in the 1980s in China, Hong Kong, India, Indonesia, the Republic of Korea, Singapore, Sri Lanka and Thailand, among others. Fleets of container ships in the developing ESCAP region have also expanded rapidly because of heavy investment and the introduction of an open registry in the Philippines, along with high rates of growth of international trade.

58. The ESCAP region has also experienced a sharp growth in air transport fueled largely by trade and tourism; such expansion, averaging over 10 per cent annually for passenger-kilometres and almost 14 per cent in freight ton-kilometres, was considerably faster than the respective global averages. The region emerged as the most active in airport development and aircraft acquisitions, with the trend expected to continue as many major infrastructure projects in air transport are being built or planned to meet the increasing demand forecast in the 1990s and beyond.

59. Telecommunications facilities and services, another crucial prerequisite of the development process, tend to show perhaps the widest disparity in terms of availability within the developing ESCAP region. While 18 countries are estimated to have less than one telephone set per 100 persons, in Hong Kong and Singapore, the telephone availability of around 36 lines per 100 persons in the mid-1980s exceeded that of many developed countries. With few exceptions, the region's telecommunications infrastructure has been unable to keep up with the requirements of economic growth since the late 1970s. However, there has been continuing expansion and upgrading of programmes virtually across the region, with expenditure on telecommunications development expected to reach $US 100 billion during the first half of the 1990s.

60. The success of the green revolution in Asia owes a great deal to the appropriate development of agricultural support infrastructure. Irrigated cropping areas expanded at a strong pace in several countries, including Bangladesh, Indonesia, the Lao People's Democratic Republic, Nepal and Thailand over the period 1978-1988. The availability of other modern inputs also contributed to greater cropping intensity in many countries. Although many countries have made considerable progress in building up their research infrastructure and facilities, the continuing financial constraints present difficult choices as regards the nature and priorities of agricultural research. Recent advances in biotechnologies have introduced another quantum jump in agriculture and agro-processing productivity; they can also be relied on to redress the imbalances caused by the green revolution itself. However, the efficient transition to this complex and sophisticated field of research requires certain structural and organizational changes, as well as the development of skilled personnel which is in critically short supply. Lastly, the growing commercialization of research work in the developed countries has

generally limited the free flow of new developments in frontier biotechnologies to developing countries.

61. Notwithstanding the spread of the green revolution and other forms of intensive agriculture, research coupled with extension programmes still encounter considerable difficulties. These may be of an institutional nature (for example, the prevailing patterns of ownership, tenancy and land rights in small-scale farming), a socio-cultural nature (for example, gender bias resulting in inadequate recognition of the important role of women in agriculture) and/or a management nature (insufficient and irregular supply of inputs). Although considerable progress has been made in the region, marketing conditions (including transport and storage facilities) remain difficult and credit availability inadequate in many places. The policy of keeping food prices low has constituted another disincentive. Moreover, small, landless and upland farmers tend to be the least provided with the relevant facilities and services, although there may be significant efficiency and equity gains with extended coverage.

III. ISSUES IN SOCIAL INFRASTRUCTURE DEVELOPMENT

62. The development of social infrastructure facilities, such as those for education, health and urban housing and other facilities, has lagged considerably behind those of physical and economic infrastructure. With few exceptions, the share of government spending on social infrastructure - a principal indicator of the availability of such services - tended to rise slowly or remained constant in the developing ESCAP region during the last two decades or so. Such allocation generally accounted for about one fifth of central government expenditure in the late 1980s; in several countries, such as India and Pakistan, however, provincial and local-level government played a more important role than the central authorities in the provision of social services and infrastructure. There were significant variations among the regional economies with China and the Islamic Republic of Iran being among the countries which experienced the sharpest rise in social sector allocation. Several ASEAN members registered a marginal fall in social infrastructure funding, although Malaysia and Thailand had, by and large, achieved high levels of coverage of social infrastructure by the late 1980s.

63. In terms of availability, there is considerable divergence between South Asia and the East Asian subregion; within the East Asian subregion, the NIEs generally have the highest levels of social infrastructure coverage and availability. China, which had accorded high priority to the social sectors, exhibited indicators of health and education performance close to those of several South-East Asian countries in spite of lower per capita income. South Asia and the Asian least developed countries suffered from a chronic shortage of social infrastructure facilities and services, with the consequent unfavourable indicators of performance across a wide range of social infrastructure. The Lao People's Democratic Republic and Sri Lanka exceptionally had very high rates of adult literacy and primary school enrolment; so had the smaller island economies, such as in Fiji, Samoa and

Tonga, although these rates remained less favourable elsewhere in the subregion.

64. By and large, both the coverage and availability of social infrastructure in the developing ESCAP region have expanded considerably in the past three decades or so. This has contributed, in turn, to a noticeable improvement in various performance indicators, including a sharp decline in infant mortality rates, an increase of varying magnitudes in life expectancy at birth, in adult literacy rates and in nutritional intake, and greater access to a wider range of social-sector facilities and services. In spite of several variations and divergences in approaches and priorities regarding social infrastructure development and targeting among developing countries of the region, it is apparent that high levels of social development have been preceded by high income growth. Notwithstanding this sequence, the prevailing imbalances in social infrastructure, particularly in terms of greater equity in access and distribution and in intersectoral allocations, can be corrected without an unduly long wait for the necessary rise in income levels.

65. As regards the health sector, in most countries of the region there is an observable overemphasis on developing curative health care facilities and ancillary services, which are relatively capital-intensive. However, there is a wide variation in the availability of physicians and hospital beds for a given number of population with high availability ratios restricted to the NIEs and other middle-income countries. However, Sri Lanka and Viet Nam had an availability ratio in terms of hospital beds per population comparable with the NIEs, while China and Pakistan were among those countries with a high ratio of physicians. The overemphasis on modern curative medical systems results in some advanced forms of treatment and medication which are often not only incompatible with low levels of education and income, and the traditional background of many patients but also results in the persistent neglect of many traditional forms of medicines and treatment. Moreover, the increasing realization of the nature of disease patterns and their close link to social, sanitation and housing conditions has contributed to a shift of attention and resources towards preventive, and family- or community-based health care programmes in recent years. There has been a considerable improvement in child immunization rates in many economies in the 1980s; the rates remained comparatively low in most least developed countries, however. Family planning programmes are now seen as intrinsic to an integrated health care approach, although the adoption of contraceptive methods has tended to be conditioned by socio-cultural or religious considerations.

66. In education, the share of government expenditure has generally not shown any marked shift in the last two decades. It ranged from 15 to 20 per cent of total government expenditure among the NIEs, ASEAN and several Pacific island countries to around 10 per cent among the Asian least developed countries. Among the exceptions, China and the Islamic Republic of Iran have raised considerably their education funding, while the relative share going to education has fallen in Sri Lanka and Viet Nam because of a shift in policy orientation and resource constraints. In general, educational funding faces persistent problems, both in terms of efficiency and equity. In many

countries, while primary education programmes remained severely underfunded, vast sums were spent on post-primary education, which remained by and large the preserve of the urban elite and other well-off segments of the population. In addition, an excessive concentration on tertiary education resulted in high levels of graduate unemployment in many countries. The growing need for greater harmonization between educational and labour market structures has often led to increased emphasis on vocational and technical education, although social attitudes were not generally supportive of such education in several countries.

67. The rapid rates of urbanization and severe urban congestion have generated a great burden on the provision of water supply, sanitation services and housing in many parts of the region. Unaffordable and inadequate housing and other facilities have forced a large proportion of the urban population (ranging typically from a quarter to around two fifths) to live in overcrowded squatter settlements, city tenements or on the pavement without constructed shelter. Efforts to provide low-cost housing and related facilities to the poor have tended to be relatively more successful in the NIEs, especially Singapore.

68. The proportion of the urban population with access to piped water supplies and sanitation services has expanded considerably in the last two decades, particularly in the East Asian subregion; the extent of coverage in most South Asian and least developed countries, however, has not been impressive. The expansion was often made possible through over-stretched facilities, but inadequate maintenance has caused a deterioration in quality in several countries. The growing shortage of water sources in many locations, the high cost of urban water and sewerage systems and persistent budgetary constraints make it unlikely for any significant extension of coverage in many regional cities in the 1990s. In response, there has been some progress in developing low-cost, community-based sanitation facilities and options, while the informal sector has played an important role in recycling a significant portion of urban waste materials. Non-governmental organizations and other informal-sector groups are seen as part of an integrated solution to some of the problems confronting urban water and housing supplies and sanitation services.

69. The issues concerning the distribution of, and access to, social infrastructure facilities and services are generally more serious than those concerning physical infrastructure. Along with the urban-rural disparities and other subnational divergences, there is a pronounced gender bias against women, particularly those who are poor and who live in rural areas. However, gender equity in terms of primary and secondary school enrolment ratios tends to prevail in the NIEs, ASEAN countries and Sri Lanka.

IV. FINANCIAL, MANAGEMENT AND INSTITUTIONAL ISSUES IN INFRASTRUCTURE DEVELOPMENT

70. A major constraint on the increased availability of infrastructure services are the limited financial resources, both domestic and external, available for investment and maintenance of infrastructure facilities. As concerns domestic resources, since most infrastructure facilities are the responsibility of the Government, fiscal measures to increase the availability of resources are essential. In most developing countries of the ESCAP region, the existence of relatively modest tax ratios implies that there are possibilities for increased efforts to raise domestic resources for infrastructure development in many countries. There are limits, however, to such efforts in low-income economies, and limits on the types of instruments that can be relied on for such mobilization. There is also considerable room for the reallocation of public expenditure. Reductions in the large military expenditure in many countries of the region could become possible in view of the changing geo-political situation in the 1990s, providing more resources for infrastructure development. Within the infrastructure itself, possibilities of reallocation exist from programmes and projects whose goals, in varying degrees, have been met or whose underlying premises are no longer valid or urgent so as to improve both efficiency and equity in infrastructure development and management. Greater fiscal decentralization to mobilize resources is another option as indeed local-level measures tend to have a more direct bearing particularly on urban social facilities and services, and on rural infrastructure generally.

71. Another source of domestic finance for infrastructure development is through the involvement of the private sector. In most countries of the region, the private sector is likely to play a larger role in infrastructure development and management in the 1990s. The trend towards liberalization is apparent in several fields, most notably telecommunications, various transport subsectors and energy. It would seem that the likely candidates for further privatization are those infrastructure services in which equity considerations are less important and which are specific to high-income groups and neighbourhoods.

72. Another source of increasing government finance for infrastructure development is through user charges. User charges or increases in user charges can be selectively imposed to rationalize demand, improve delivery efficiency (by keeping costs down) and improve equity over a wide range of infrastructure utilized by mostly well-off social groups, conferring large private benefits and/or subject to inelastic or excess demand (for example, post-secondary education). A rational pricing approach typical in many countries of the region relates to differing tariffs levied on various categories or classes of electricity consumers. Several facilities and services, such as primary education, health, water and sanitation, constitute basic public goods, but an indiscriminate low pricing policy often contributes to unsustainable financing needs and, consequently, to a declining availability and standard of services. In cases of basic social infrastructure, however, cost recovery would not be feasible without the

development of scholarship, student loan and health insurance schemes. Although considerable progress has been made in several countries, such development is still constrained by inadequate institutional facilities and the existence of heavily subsidized or free services.

73. In the past foreign aid and loans have played an important role in the development of a wide range of economic and social overheads with a high component of foreign exchange or skilled inputs. The impact of external assistance, however, depends greatly on effective coordination among donors and between donors and the recipient Government to avoid duplication, and on the choice of technology in particular to achieve greater relevance in terms of local needs and absorptive capabilities. The observed bias in favour of capital-intensive projects could be lowered by financing local cost components, as well as current expenses, by external assistance.

74. There is considerable scope for the improvement of public-sector management through closer monitoring and coordination of expenditure commitments on infrastructure by various departments and agencies. In addition, the ad hoc patterns of disbursement of funds brought about by unforeseen resource constraints and other short-term adjustments considerably affect the efficiency of infrastructure project development and management. In spite of several limitations, social cost-benefit analysis provides a useful framework for project selection and evaluation. Efficiency gains can thus be significant with strong public-sector capabilities in, and commitment to, appraising carefully major infrastructure projects, although this is not always the case.

75. Management weaknesses are also reflected in the inadequate operation and maintenance of infrastructure. Yet, there is considerable evidence that preventive maintenance is more cost-effective and brings greater overall benefits than new investment. The consequent deterioration in standards and services not only causes direct losses to users but also adversely affects the usefulness of ancillary facilities and services. Pricing policies for several facilities and services (for example, road networks, transport subsectors, water supply and sanitation services) often generate insufficient resources even for maintenance purposes. Experienced and competent administrators are a scarce public-sector resource, while bureaucratic procedures may hamper efficient operations and maintenance, as can be seen in the relative neglect of recurrent costs of operations and maintenance in the budgeting process.

76. Another set of problems concerns public-sector infrastructure enterprises which, for a variety of reasons, including limited autonomy and conflicting objectives, tend to be a heavy drain on the government budget. Notwithstanding a variety of measures to improve enterprise accountability and productivity, the private sector is likely to play a larger role in infrastructure development and management in many countries in the 1990s. As noted earlier, the trend towards liberalization is apparent in several fields, most notably telecommunications, various transport subsectors and energy.

77. There is a strong case for greater decentralization and community participation in infrastructure development and management. Non-government and community organizations in a large number of countries have demonstrated a remarkable capacity for resource mobilization for the efficient and equitable distribution of output and benefits, and/or for ensuring greater social relevance and hence local acceptance of facilities and services. Typical cases in point include the Orangi pilot project to develop low-cost sanitation technologies in Karachi, the Grameen Bank in Bangladesh, the Makapana rural health care project in the Philippines and Sri Lanka's Vedagedara rural health programmes.

V. SELECTED POLICY ISSUES IN INFRASTRUCTURAL DEVELOPMENT

78. In the least developed and Pacific island countries, the availability and coverage of economic and social infrastructure are much less favourable relative to those prevailing in the NIEs and ASEAN economies. This is the result of a variety of physical, structural and institutional constraints, ranging from difficult terrain, being sea-locked or land-locked, remote insularity, small population base and/or high population density, frequent natural disasters, unstable patterns of economic growth, to inadequate human resources and institutional capabilities. Even so, the Pacific islands tend to have higher per capita energy consumption and better telecommunications facilities; smaller island economies also exhibit more favourable indicators in education and, to a less extent, health care, safe water supply and sanitation services.

79. There are also large variations across the region in the provision of social infrastructure. In the NIEs and to a lesser degree, in some of the ASEAN economies, at least minimal standards of coverage in social infrastructure are provided. For them, improving the quality of infrastructure provision and widening the scope of social infrastructure are of paramount importance. There is also the need to bring specific underdeveloped regions, and in particular rural areas, into the national mainstream even in those relatively well-provided countries of the region. However, for most countries in the region, particularly the least developed countries, and India and Pakistan, levels of coverage are so poor that only a phenomenal raising of resource allocations to the social sectors could come close to addressing the shortfalls.

80. Given the special development constraints faced by the least developed and Pacific island countries, their pattern and pace of infrastructure development would necessarily be conditioned by the viable development opportunities and potential. In addition, the financing of recurrent costs from existing infrastructure, established largely through overseas aid, has been a considerable burden and deserves serious consideration for possible assistance by external donors.

81. The problem of rising unemployment faced by many developing countries emphasizes the need for sensitivity in adopting appropriate technologies in infrastructure development and management, whenever such choices exist. The experience gained so far indicates that in both core and ancillary construction and operations, there is a wider range of substitutable technologies appropriate to local factor endowments than originally assumed. Needless to say, the preference for appropriate technologies is not always incompatible with new and advanced techniques whose adoption would facilitate quality upgrading and leap-frogging in a wide range of fields, including infrastructure development and operations. In fact, many developing economies have significantly improved their infrastructure to state-of-the-art levels, for example, in telecommunications and informatics, biotechnology research, maintenance and operations of various transport subsector facilities. Nevertheless, the shortage of skilled and experienced personnel across a wide spectrum of expertise has become increasingly more acute than that of capital in several countries. Apart from problems in recruitment and retention, output from the existing educational system is not always relevant to needs or uniform in quality.

82. The development and operations of infrastructure will have an adverse impact on the environment although the nature and extent of such damage depend on a variety of geo-physical and climatic factors. The construction of large dams for irrigation and power generation has caused several well-known negative effects on the ecology and considerable social disruption. Road transport and oil- or coal-based power generation contribute to air and water pollution, while oil spillage on busy shipping lanes and harbours damages coastal wildlife and marine resources. The now widespread recognition that environmental assets are not free goods has led to the incorporation of detailed environmental and social impact assessment in the economic appraisal of infrastructure projects in many countries of the region.

83. There are, however, intractable problems in incorporating environmental concerns in the evaluation of infrastructure projects. The innovative methodologies and techniques of natural resource accounting and budgeting are still at an elementary stage, and a wide range of interdependent environmental variables and (protection) services remain outside the market pricing mechanism; consequently their relative costs and benefits are often impossible to monetize or estimate with reasonable confidence. Other equally difficult problems include the need for harmonization of national environmental policies and standards on a bilateral, regional or international basis. The application of the polluter-pays principle, although not at present feasible across national frontiers, should be enforced as a general rule in the domestic economy.

84. There exists substantial scope for regional cooperation, particularly in large-scale infrastructure projects, in projects with an internationally tradable output, or in the promotion of environmental management through joint infrastructure development. Such cooperation among economies of the region has already existed in the transport, communications, energy and irrigation sectors. Nevertheless, there are factors hindering further cooperation,

ranging from the lack of sustained commitment among some countries to foster full cooperation to inadequate technical exchange and cooperation. In other cases, there is also a certain degree of over-reliance on bilateral donor assistance. Moreover, the participation from the private sector and non-governmental organizations, where it exists, is often peripheral in regional cooperation projects, and they could play a more significant and integrating role.